

Remarks:

This paper is being submitted in response to the Office Action dated November 24, 2004, wherein the Examiner (1) maintains the restriction requirement with respect to groups I-XXXVII; (2) objects to the Abstract under M.P.E.P. § 608.01(b); (3) objects to the title as being non-descriptive; (4) objects to the citations of references "BQ," "BR," and "BS" in the Information Disclosure Statement submitted on November 12, 2002 as not complying with 37 C.F.R. § 1.98 for failing to indicate the respective authors; (5) rejects claims 4 and 31 under 35 U.S.C. § 101 as being directed to non-statutory subject matter; (6) rejects claims 1, 3, 4, 30, and 31 under 35 U.S.C. § 112, first paragraph, as not being enabled and for containing subject matter not described in the specification so as to reasonably convey to a skilled artisan that the inventors had possession of the claimed invention at the time of filing; (7) rejects claim 1 under 35 U.S.C. § 102 as being anticipated by the 1991 Stratagene catalog (page 66) (hereinafter, "Stratagene"); and (8) rejects claims 1, 3, 4, 30, and 31 under 35 U.S.C. § 102(b) as being anticipated by Emorine *et al.*, *Proc. Natl. Acad. Sci. USA* 84(20):6995-9 (1987) (hereinafter, "Emorine").

With regard to item (2), Applicants have amended the Abstract such that the phrase "Abstract of the Invention" has been replaced with, simply, "Abstract." Withdrawal of this objection is therefore respectfully requested.

With regard to item (3), without acceding to the objection, Applicants have herein amended the title of the invention to " $\beta_2$ -Adrenergic Receptor Haplotypes." Withdrawal of this objection is therefore respectfully requested.

With regard to item (4), Applicants respectfully disagree. 37 C.F.R. § 1.98(b)(5) states: "Each publication listed in an information disclosure statement must be identified by publisher, author (if any), title, relevant pages of the publication, date, and place of publication. Each of the references "BQ," "BR," and "BS" represent sequence "entries" into the GenBank® database administered by the National Center for Biotechnology Information under the National Institutes of Health. There is no author *per se* for these sequence entries. As indicated by the plain language of the rule, 37 C.F.R. § 1.98(b)(5) merely requires an author to be identified *to the extent there is an author*. If there is no author, then it can hardly be improper for failing to identify one in a citation. Withdrawal of this objection is therefore respectfully requested.

With regard to item (5), without acceding to the rejection, Applicants have canceled claims 4 and 31. Withdrawal of this rejection is therefore respectfully requested.

With regard to items (6), (7), and (8), without acceding to the rejections, Applicants have herein amended claim 1 to recite "An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of: (a) SEQ ID NO:21; and (b) the complement of SEQ ID NO:21." Applicants believe that this claim satisfies the requirements of 35 U.S.C. § 102 and 35 U.S.C. § 112.

Respectfully submitted,



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**ASSOCIATION OF  $\beta_2$ -ADRENERGIC RECEPTOR HAPLOTYPES ~~WITH DRUG~~  
RESPONSE****Abstract of the Invention**

Genotypes and haplotypes for thirteen polymorphic sites in the  $\beta_2$ -adrenergic receptor ( $\beta_2$ AR) gene are disclosed. Compositions and methods for predicting genetic predisposition to disease associated with polymorphic sites in the ( $\beta_2$ AR) gene, as well as for predicting response to  $\beta$ -agonists, are also disclosed.